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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jun Kamada

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

KANE, CORDELIA P

ART UNIT

PAPER NUMBER

2132

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/822,689	Applicant(s) KAMADA ET AL.	
	Examiner CORDELIA KANE	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-22, 24-33, 35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-22, 24-33, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/14/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 26, 2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 17 – 22, 24 – 33, 35 and 36 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. Claims 17, 18, 20, 21, 24, 25, 27 – 29, 31, 32, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller, and further in view of IBM Inc's "Cryptographic Microcode loading Controller for Secure Function".

Referring to claims 17, 27 and 28, Keller teaches:

- a. An input unit that inputs a command that can be executed by using a firmware or a logic circuit (column 27, lines 9-11).

- b. A storing unit that stores a plurality of operating mode, each one of the modes corresponding to a different set of commands that are available when the each one of the operating modes is set (column 33, lines 10-11).
 - c. A determining unit that determines whether the input command is included or not in the set of commands corresponding to a current operation mode (column 27, lines 19-23).
 - d. An execution unit that executes the input command by using the firmware or the logic circuit, when the input command is included in the set of commands corresponding to the current operation mode (column 27, lines 17-21).
4. Keller does not explicitly disclose:
- e. The operating modes corresponding to a different set of resources required for executing the commands that are available when the each one of the operation modes is set,
 - f. An access control unit that, when the input command is included in the set of commands corresponding to the current operation mode, determining whether a necessary resource to execute the input command is included in the set of resources corresponding to the current operation mode, and
 - g. Upon the necessary resource being included in the set of resources corresponding to the current operation mode, executing the input command by using the firmware or the logic circuit in conjunction with the resource.
5. However, IBM discloses a decryption resource only available with specific commands (Page 2, full paragraphs 3 and 4). IBM goes on to disclose determining if the

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microcontroller has the correct key for the code and when it does using the decryption key to decrypt the command and execute it (page 2, full paragraph 4). Keller and IBM are analogous art because they are from the same field of endeavor, command execution. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Keller and IBM before him or her, to modify the system of Keller to include the encryption/decryption of IBM. The suggestion/motivation for doing so would have been to let a general purpose device to be customized or updated while remaining secure (page 2, full paragraph 2).

6. Referring to claims 18 and 29, Keller teaches that the input unit inputs an operation mode adding command for storing a new operation mode in the storing unit, and the execution unit makes the storing unit store the new operating mode (column 28, lines 6-10).

7. Referring to claims 20 and 31, Keller teaches a firmware acquiring command for acquiring a new firmware, and then acquiring that firmware (column 9, lines 35-39).

8. Referring to claims 21 and 32, IBM discloses that the firmware is encrypted and decrypted before execution (page 2, full paragraph 4).

9. Referring to claims 24 and 35, Keller teaches:

h. An operation mode deleting unit that deletes a specified operation mode from the storing unit (column 36, lines 21-22).

i. A firmware deleting unit that deletes firmware corresponding to the operation mode deleted (column 36, lines 12-14).

10. Referring to claims 25, and 36, Keller teaches requesting an external emulator to execute the input command when the input command is not included in the set of commands corresponding to the current operation mode (column 36, lines 35-44). While it does not explicitly state that an error occurred, it is inherent that the system must have encountered an error to be able to detect that the application was in a legacy format.

11. Claims 19 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller in view of IBM and further in view of Heinonen et al's US Patent 6,633,758 B1. Keller in view of IBM discloses all the limitations of the parent claims. Keller in view of IBM does not explicitly disclose storing the new operation mode when the number of commands is greater than the number of commands corresponding to any one of the operating modes. However, Heinonen discloses creating a new operational mode consisting of existing parameters from existing operational modes and adding additional application specific parameters (column 3, lines 4-10). Keller in view of IBM and Heinonen are analogous art because they are from the same field of endeavor, communication devices. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Keller in view of IBM and Heinonen before him or her, to modify the system of Keller in view of IBM to include the addition of operating modes of Heinonen. The suggestion/motivation for doing so would have been to have more available applications (column 1, line 67-column 2, line 11).

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12. Claims 22, and 33 are rejected under 35 USC 103 (a) as being obvious over Keller in view of IBM and further in view of Bryon Nevis et al's US Patent 6,581,159. Referring to claims 22 and 33, Keller in view of IBM discloses all the limitations of the parent claims. Keller in view of IBM does not appear to explicitly disclose encrypting the firmware with a digital signature. However, Nevis discloses using digital signature techniques to validate the firmware (column 4, lines 28-30). Keller in view of IBM and Nevis are analogous art because they are from the same field of endeavor, of changing operating modes. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Keller in view of IBM and Nevis before him or her, to modify Keller in view of IBM to include the encryption of Nevis. The motivation for doing so would have been that it is more secure and resistant to tampering (column 1, 26-27).

13. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keller in view of IBM, further in view of Mark Biondi's US Patent 6,622,246 and further in view of Brent Gregory et al's US Patent 5,748,488. Referring to claim 26, Keller in view of IBM discloses all the limitations of the parent claim, as well as acquiring firmware (Keller, column 9, lines 35-39). Keller in view of IBM does not appear to explicitly disclose loading logic circuit data instead of firmware. However, Biondi discloses using a logic circuit instead of firmware (column 6, lines 26-30). At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Keller in view of IBM and Biondi before him or her, to modify the firmware acquiring of Keller in

view of IBM to include using a logic circuit instead of Biondi. The motivation for doing so is that any machine capable of performing the steps of the firmware could be used to replace it (column 6, lines 32-35).

14. Keller in view of IBM in view of Biondi does not appear to disclose how to implement the logic circuit that is replacing the firmware. Gregory discloses that to generate a logic circuit all that is needed is the information on the signals (column 2, lines 28-30). Therefor instead of passing the actual firmware, as taught by Keller in view of IBM, one would need to pass the data on the signals. Gregory goes on to disclose how to generate that logic circuit after receiving the appropriate information on the signals (column 2, lines 40-42). At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Keller, IBM, Biondi and Gregory before him or her, to modify Keller in view of IBM in view of Biondi to include generating the logic circuit of Gregory. Therefor it would have been obvious after modifying Keller with Biondi to include how to implement the logic circuit mentioned as taught by Gregory.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CORDELIA KANE whose telephone number is (571)272-7771. The examiner can normally be reached on Monday - Thursday 8:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. K./
Examiner, Art Unit 2132

/Benjamin E Lanier/
Primary Examiner, Art Unit 2132